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Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on April 12, 2004  
*Eric W. Gutttag*  
Eric W. Gutttag

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of :  
Irene SPITSBERG et al : Group Art Unit:  
Serial No. 10/748,518 : Confirmation No.:  
Filed: December 30, 2003 :  
For: THERMAL BARRIER COATINGS WITH LOWER POROSITY FOR  
IMPROVED IMPACT AND EROSION RESISTANCE

**INFORMATION DISCLOSURE STATEMENT PURSUANT TO 37 CFR 1.56,  
1.97 AND 1.98 (WITHIN 3 MONTHS OF FILING OR PRIOR TO FIRST OFFICE ACTION)**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In accordance with 37 CFR 1.56, 1.97 and 1.98, Applicants request the Examiner to make of record the documents listed on the attached PTO-1449 forms. Copies of the listed documents that are not U.S. patent documents are also enclosed. In accordance with MPEP 609, the Examiner is requested to initial each document listed on the attached PTO-1449 forms in the space provided, make a copy of the initialed forms, and return the copy to Applicants' attorney.

Applicants also request the Examiner to consider and make of record certain copending U.S. applications that are listed in the attached Table entitled "Copending U.S. Patent Applications." Copies of the copending applications listed in the attached table are also enclosed. In accordance with MPEP 609, the Examiner is requested to initial each copending application listed on the attached Table in the space provided, make a copy of the initialed Table, and return the copy to Applicants' attorney.

This paper and the enclosed documents are being submitted in accordance with 37 CFR 1.97(b), i.e., within three (3) months of the application filing date or prior to a first Office Action on the merits.

Respectfully submitted,

For: Irene SPITSBERG et al

By: *Eric W. Gutttag*  
Eric W. Gutttag  
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April 12, 2004

**COPENDING U.S. PATENT APPLICATIONS**

<b>Examiner Initial</b>	<b>Applicant(s)</b>	<b>Serial No.</b>	<b>Filing Date</b>	<b>Attorney Docket No.</b>
	Gorman et al	10/748,516	12/30/03	127051
	Boutwell et al	10/748,517	12/30/03	127084
	Darolia et al.	10/748,519	12/30/03	128895
	Spitsberg et al.	10/748,508	12/30/03	129967
	Spitsberg et al	10/748,520	12/30/03	129968
	Spitsberg et al	10/748,521	12/30/03	130706
	Spitsberg et al	10/748,513	12/30/03	143385



# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

*Complete if Known*

Application Number	10/748,518
Filing Date	December 30, 2003
First Named Inventor	Irene Spitsberg et al.
Art Unit	
Examiner Name	
Attorney Docket Number	130707

Sheet	1	of	1
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## U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (if known)				
		US-	4,861,618	08/29/1989	Vine et al.	
		US-	5,350,599	09/27/1994	Rigney et al.	
		US-	5,384,200	01/24/1995	Giles et al.	
		US-	5,705,231	01/06/1998	Nissley et al.	
		US-	5,942,334	08/24/1999	Wortman	
		US-	5,981,088	11/09/1999	Bruce et al.	
		US-	6,025,078	02/15/2000	Rickerby et al.	
		US-	6,054,184	04/25/2000	Bruce et al.	
		US-	6,117,560	09/12/2000	Maloney	
		US-	6,123,997	09/26/2000	Schaeffer et al.	
		US-	6,183,884	02/06/2001	Rickerby	
		US-	6,284,325 B1	09/04/2001	Maloney	
		US-	6,319,614 B1	11/20/01	Beele	
		US-	6,333,118 B1	12/21/2001	Alperine et al.	
		US-	6,352,788 B1	03/05/2001	Bruce	
		US-	6,387,526 B1	05/14/2002	Beele	
		US-	6,465,090 B1	10/15/2002	Stowell et al.	
		US-	2003/0044624 A1	03/06/2003	Spitsberg et al.	
		US-	2003/0224200 A1	12/04/03	Bruce	

## OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s) volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		HWANG et al., "Grain Size Control of Tetragonal Zirconia Polycrystals Using the Space Charge Concept", J. Am. Ceram. Soc., 1990, 73(11):3269-77	
		BRUCE, "Development of 1232°C (2250°F) Erosion and Impact Tests for Thermal Barrier Coatings", Tribology Trans., (1998), 41(4):399-410	
		KIM, "Effect of Ta <sub>2</sub> O <sub>5</sub> , Nb <sub>2</sub> O <sub>5</sub> , and HfO <sub>2</sub> Alloying on the Transformability of Y <sub>2</sub> O <sub>3</sub> -Stabilized Tetragonal ZrO <sub>2</sub> ", J. Am. Ceram. Soc., 73(1):115-120	
		VASSEN et al., "Zirconates as New Materials for Thermal Barrier Coatings," J. Am. Ceram. Soc., 83(8):2023-28 (2000)	

Examiner  
Signature

Date  
Considered